

CLAIMS

What is claimed is:

1. A sub-miniature arc lamp comprising:

a sapphire body having a first end and a second end, the first end being coupled to a first cap and the second end being coupled to a second cap to define a sealed envelope, wherein a first electrode being mounted in the first cap and a second electrode being mounted in the second cap are enclosed within the envelope.
2. The sub-miniature arc lamp of claim 1, further comprising one or more getters being mounted along the first electrode.
3. The sub-miniature arc lamp of claim 2, wherein the one or more getters include one or more mercury-dispensing getters.
4. The sub-miniature arc lamp of claim 1, further comprising one or more getters being mounted along the second electrode.
5. The sub-miniature arc lamp of claim 4, wherein the one or more getters include one or more mercury-dispensing getters.
6. The sub-miniature arc lamp of claim 1, further comprising an airtight housing substantially surrounding the sapphire body.

7. The sub-miniature arc lamp of claim 6, wherein the airtight housing contains an inert gas.
8. The sub-miniature arc lamp of claim 1, wherein the sapphire body is a sapphire tube.
9. The sub-miniature arc lamp of claim 1, wherein the first electrode is an anode and the second electrode is a cathode.
10. A sub-miniature arc lamp comprising:
a sapphire body having a first end and a second end, the first end being coupled to a first cap and the second end being coupled to a second cap to define a sealed envelope, wherein a first electrode being mounted in the first cap and a second electrode being mounted in the second cap are enclosed within the envelope, wherein the sapphire body is substantially surrounded by an airtight housing filled with an inert gas; and
one or more getters being mounted along the first electrode.
11. The sub-miniature arc lamp of claim 10, wherein the one or more getters include one or more mercury-dispensing getters.
12. The sub-miniature arc lamp of claim 10, further comprising one or more getters being mounted along the second electrode.

13. The sub-miniature arc lamp of claim 12, wherein the one or more getters include one or more mercury-dispensing getters.
14. The sub-miniature arc lamp of claim 10, wherein the sapphire body is a sapphire tube.
15. A method of making a sub-miniature arc lamp comprising:
mounting an anode in a top;
mounting a cathode in a base;
coupling the base to a first end of a sapphire body; and
coupling the top to a second end of the sapphire body to form a sealed envelope,
wherein the anode and the cathode are enclosed within the envelope.
16. The method of claim 15, further comprising mounting one or more getters along at least one of the anode and the cathode.
17. The method of claim 16, wherein the one or more getters include one or more mercury-dispensing getters.
18. The method of claim 15, further comprising mounting the sapphire body substantially inside an airtight housing.

19. The method of claim 18, further comprising filling the airtight housing with an inert gas.
20. The method of claim 15, wherein the sapphire body is a sapphire tube.
21. The method of claim 15, wherein mounting the anode in the top includes press-fitting the anode into the top.
22. The method of claim 15, wherein mounting the cathode in the base includes press-fitting the cathode into the base.